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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,416	12/11/2003	Patrick Reichenauer	MM4404DIV	1160

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EXAMINER

KEITH, JACK W

ART UNIT PAPER NUMBER

3641

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,416

Applicant(s)

REICHENAUER, PATRICK

Examiner

Jack W. Keith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-24 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/763,217.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/11/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species I drawn to claims 16-23 in the reply filed on 11/10/2004 is acknowledged.
2. Claim 24 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/10/2004.
3. An action on the merits to claims 16-23 follows below.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As presently set forth, the process featuring the computer processing software (26) is considered to be essentially a black box with no description of the internals thereof. The disclosure is thus insufficient in failing to set forth in an adequate and sufficient fashion, a description of the computer software which would enable the device to perform all of the features (i.e., calculations, determinations, etc.) that are disclosed

and claimed . If applicant is of the opinion that there is a description in the prior art (in the form of literature, etc. having a date prior to the filing date of this application), of the computer software that can accomplish the disclosed and claimed features (i.e., calculations, determinations, etc.), copies of said literature, etc., must be submitted for appropriate review by the Office. See In re Ghiron et al, 169 USPQ 723, 727.

6. Claims 16-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while on face appears to be enabling for radioactive elements uranium and plutonium does not reasonably provide enablement for any radioactive element or mix of elements. That is the, the equations/calculations/determinations set forth in the specification are postulated for uranium and plutonium only. There is no indication as to what or in what manner these equations/calculations/determinations are manipulated or changed to account for other radioactive elements or mixes.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 16-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The meets and bounds of the claims are indefinite as the disclosure sets forth embodiments having radioactive elements uranium and plutonium only. Thus, the claims are broader than the enabling disclosure.

Claim Rejections - 35 USC § 103

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (see specification pages 1-2).

Note that the claims are directed to a simulation only.

With regard to the prior art the currently used preliminary calibration of the radiation measurement system reads on applicant's claim language.

MPEP 2144.04 III Automating a Manual Activity. The courts have held that merely automating a manual activity does not distinguish over the prior art. In the instant case, the claimed process to simulate the response of a radiation detector in detecting radiation emitted by radioactive objects is set forth in the prior art preliminary calibration of the radiation measurement system.

memorizing the radioactive emission spectra representative of the radioelements or mixes of radioelements [This step is set forth in the known sample (i.e., uranium/plutonium containing test rod).];

determining the detection characteristics of the detector [This step is set forth in the selection of the detector by the operator. In the instant case an annular scintillator.];

determining the operating characteristics of received radiation [As above, this step is set forth in the selection of the detector by the operator. In the instant case an annular scintillator.];

choosing the radioelements or mixes of radioelements from the radioelements whose radioactive emission spectra are memorized and which are representative of the content of the objects; [This step is set forth in the selection of test rod by the operator]; and

carrying out a computer processing [i.e., operator], using the detection characteristics of the radiation detector and the operating characteristics of the received radiation, to individually reproduce the radiation emitted, for the chosen radioelements or mixes of radioelements and develop a simulated response of the radiation detector, in which the objects are nuclear fuel elements [Again as above, these steps are carried out by the operator performing calculations with the collected data to ensure the detectors are operating accordingly].

With regard to applying simulation process to a real composition this process is carried out by the operator after the calibration test has been completed.

Accordingly, it appears that applicant is providing for the automation of a manual task. Clearly as set forth above and in MPEP 2144.04 III, such is obvious. The mere reduction of operator exposure to radioactive elements is advantageous in the art for economic factors as well as health factors. Again such modification would have been obvious to one having ordinary skill in the art at the time the invention was made.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack W. Keith whose telephone number is (703) 306-

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5752. The examiner can normally be reached on Monday-Thursday 6:30-5 p.m., with Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jack W. Keith
Primary Examiner
Art Unit 3641

jwk
February 3, 2005